M.Sc-I/BOT-103C(T)/18

M.Sc. 1st Semester Examination, 2018

BOTANY

(Phycology & Bryology)

Paper : BOT-103C(T)

Course ID : 11353

Time: 2 Hours **Full Marks: 30**

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Group – A
(Phycology)

1. Answer *any two* questions from the following: 1×2=2

(a) Write the functions of Gelatinous Sheath of Blue-green algae.

(b) What do you mean by Englemann's theory of 'Complimentary Chromatic Adoptation'?

(c) Write the important features of Androspores found in Green algae.

(d) What do you mean by Gongrosira stage.

2. Answer *any one* of the following: 5×1=5

(a) With suitable sketches, describe any one of the processes of sexual Auxospore formation in pennate diatoms. Write the nuclear behaviours during the process. 4+1=5

(b) What is the basis of Lee's classification on algae. Briefly describe the classification following Lee. 5

3. Answer *any one* of the following: 8×1=8

(a) Name the phases of Triphasic Alternation of generations. Schematically represent the above cycle (any one) which you have studied. Mention the important features of the gametophytic generation of that member. 1+3+4=8

(b) (i) Write a brief note on the economic importance of *Keiselgruh.*

(ii) Write a short note on the origin and evolution of sexual reproduction in Algae. 4+4=8

Group – B
(Bryology)

4. Answer *any two* of the following: 1×2=2

(a) Write any two advanced characters of Anthocerophyta.

(b) What is peat moss? Mention its importance.

(c) Distinguish between Apospory and Apogamy.

(d) Write the differences between Ecohydric and Endohydric species in Bryophyte.

5. Answer *any one* of the following: 5×1=5

(a) (i) Distinguish between Epiphyllous (Folicolous) and Epilithic (Soricolous) Bryophytes with examples.

(ii) Mention the note of Bryophytes as the Bioindicator of air pollution. 2+3=5

(b) (i) Write the differences in "Callous formation" in Bryophytes.

(ii) Write a short note on the sex-chromosome in Bryophyte. 3+2=5

6. Answer *any one* of the following: 8×1=8

(a) Mention the salient features of Takakiales with necessary sketches.

(b) (i) Write down the classification of Bryophytes with class characters.

(ii) Write down the important sporophytic characters of *Funaria* sp. 4+4=8

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